

CLAIMS

The current claim set of the application is presented below. Indications as to the status of the claims ("original", "currently amended", "cancelled", "new", etc.) appear in parentheses after the claim number. Deletions are identified in bold with double brackets and strikethrough (e.g. ~~[[deletion]]~~) and new text is identified in bold with underlining (e.g. new language).

1-21. Cancelled

22-37. Cancelled

38. (Currently amended) An implantable medical electrical lead for electrical stimulation of one or more sacral nerves of a human patient comprising:

a lead body extending between lead proximal and distal ends;

a coil electrode disposed near the distal end of the lead body, wherein the coil electrode includes a wire coil and an electrode connector, wherein the wire coil is electrically and mechanically connected to the electrode connector;

a first ring electrode disposed distal the coil electrode;

a second ring electrode disposed proximal the coil electrode; and

a third ring electrode, wherein the third ring electrode is made of a solid surface material and is disposed proximal the second ring electrode,

wherein the coil electrode, the first ring electrode, the second ring electrode, and the third ring electrode are all configured to provide electrical stimulation to the one or more sacral nerves of a human patient.

39. Cancelled

40. (Previously presented) The implantable medical electrical lead according to claim 38 further comprising a proximal connector disposed at or near the proximal end of the lead body.

41. (Previously presented) The implantable medical electrical lead according to claim 38 further comprising one or more proximal connector elements.
42. (Previously presented) The implantable medical electrical lead according to claim 41 further comprising one or more lead conductors extending between the one or more proximal connector elements and one or more of the coil electrode, the first ring electrode, the second ring electrode, or the third ring electrode.
43. (Previously presented) The implantable medical electrical lead according to claim 38, wherein the coil electrode comprises an elongated, flexible, coiled wire extending between first and second coil ends.
44. (Previously presented) The implantable medical electrical lead according to claim 43, wherein the distance between the first and second coil ends is between about 0.10 inches and 1.50 inches.
45. (Previously presented) The implantable medical electrical lead according to claim 38, wherein the coil electrode has an outer diameter of about 0.5 millimeters to about 2.0 millimeters.
46. (Previously presented) The implantable medical electrical lead according to claim 38, wherein the coil electrode possesses sufficient mechanical flexibility and sufficiently small diameter to permit the distal portion of the lead to be inserted through a foramen of the patient's sacrum into a position near or in operative relation with at least one of the patient's sacral nerves without damaging or causing physical trauma to the at least one sacral nerve as the distal portion of the lead is being implanted by a physician in proximity thereto or after implantation of the lead has occurred.

47. (Previously presented) The implantable medical electrical lead according to claim 38, wherein the coil electrode, the first ring electrode, the second ring electrode, and the third ring electrode are configured to provide electrical stimulation to the at least one sacral nerve in an amount and manner sufficient to provide therapy to the patient for a pelvic floor disorder.

48. (New) The implantable medical electrical lead according to claim 38, wherein the first ring electrode, and the second ring electrode are solid surface materials.

49. (New) The implantable medical electrical lead according to claim 38, wherein the third ring electrode comprises platinum, platinum-iridium, or stainless steel.

50. (New) The implantable medical electrical lead according to claim 48, wherein the first ring electrode, and the second ring electrode independently comprise platinum, platinum-iridium, or stainless steel.

51. (New) A method of implanting a medical lead near a sacral nerve of a patient comprising:

making an incision in the patient to expose the sacral foramen; and

inserting a medical lead into the incision,

wherein the medical lead comprises:

a lead body extending between lead proximal and distal ends, the lead body having an internal lumen shaped to accept a stylet;

a coil electrode disposed near the distal end of the lead body;

a first ring electrode disposed distal the coil electrode;

a second ring electrode disposed proximal the coil electrode; and

at least one proximal connector element located on the proximal end of the lead body,

wherein at least the coil electrode is located at least adjacent to a sacral nerve that is within the sacral foramen.

52. (New) The method according to claim 51, wherein exposing the sacral foramen further comprises splitting the paraspinal muscle fibers.

53. (New) The method according to claim 51 further comprising anchoring the lead in place.

54. (New) The method according to claim 51, wherein at least the coil electrode is placed in contact with the sacral nerve.

55. (New) The method according to claim 51, wherein the coil electrode has a length from about 10 mm to about 38 mm.

56. (New) The method according to claim 51, wherein the sacral nerve is the S1, S2, S3, or S4 sacral nerve.

57. (New) The method according to claim 51, wherein the sacral nerve is the S3 sacral nerve.

58. (New) The method of claim 51 further comprising inserting an insulated needle having both ends electrically exposed into the incision before the medical lead is inserted into the incision.

59. (New) The method of claim 58, wherein the needle is electrically stimulated using an external pulse generator.

60. (New) The method according to claim 59, wherein the location of the needle is tested by evaluating the physiologic response of the patient and the electrical threshold required to get that response.

61. (New) The method according to claim 51, wherein a stylet is inserted into the lumen of the lead body before the lead is inserted into the incision.

62. (New) The method according to claim 61, wherein a cannula is inserted in the incision of the patient before the lead is inserted into the incision.

63. (New) The method according to claim 62, wherein the lead is passed through the cannula to reach the sacral foramen.

64. (New) The method according to claim 61 further comprising removing the stylet from the lumen of the lead body.

65. (New) The method according to claim 51 further comprising coupling the at least one proximal connector element to a neurostimulation pulse generator, another stimulation device or additional intermediate wiring.

66. (New) A method of implanting a medical lead in a patient comprising:
making an incision in the patient to expose the sacral foramen;
inserting a needle into the incision of the patient to locate the proximity of a nerve to be stimulated, wherein the needle is an insulated needle with both ends exposed for electrical stimulation;

electrically stimulating the needle using an external pulse generator in order to test the location of the needle by evaluating the physiologic response and the electrical threshold required to get that response;

removing the needle from the evaluated location;

inserting a medical lead into the evaluated location,

wherein the medical lead comprises:

a lead body extending between lead proximal and distal ends;

a coil electrode disposed near the distal end of the lead body;

a first ring electrode disposed distal the coil electrode;

a second ring electrode disposed proximal the coil electrode; and
at least one proximal connector element located on the proximal end of the
lead body; and
connecting the at least one proximal connector element to a neurostimulation
pulse generator, another stimulation device, or intermediate wiring.

67. (New) The method according to claim 66, wherein the coil electrode has a
length from about 10 mm to about 38 mm.

68. (New) The method according to claim 66, wherein the location of the
needle is changed and the electrical stimulation of the needle is carried out again until a
desired physiologic response and electrical threshold are required.

69. (New) The method according to claim 66, wherein the needle is removed
from the evaluated location before the medical lead is inserted.

70. (New) The method according to claim 66, wherein the needle is removed
from the evaluated location after the medical lead is inserted.